

The Citizen Forester

JULY 2015

Book Review: The ABCs Field Guide to Young and Small Tree Pruning

By Rick W. Harper Intended for a broad-based audience ranging from trained professionals to beginners, this guide is an informative, enlightening, and practical resource. Composed by two well-known authorities in the field of urban tree management, the guidelines and recommendations therein offer tremendous application to help prevent the eventual challenges associated with the somewhat grim reality that most young trees established in communities never receive proper pruning.

Laid out in a user-friendly manner, this guide quickly sets **the tone in the “Preface” behind the authors’ motives, to create a resource that enables individuals, regardless of their background, to correctly prune a tree using proper tools based on their “observation of the tree” in front of them, as one looks to “improve the health and structure of that particular tree.” This is contrasted with the common notion that one should prune in accordance with what they “imagine” a tree should look like, or that they should always prune in strict adherence to a set of “idealized” pruning protocols.**

Following this, the guide is divided into four sections that follow the “ABC(&D)” theme:

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Section “A” (About This Guide)

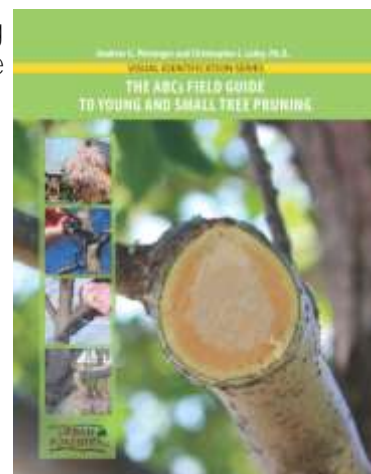
briefly introduces and defines the concepts of “ABC” pruning. As part of the introduction, learning objectives are described and the reader is introduced to the systematic way in which the guide is laid out. This is then reinforced by a pictorial “flow-chart” highlighting each of the book’s sections and key points.

Section “B” (Bring Your Tools) identifies and outlines common pruning tools and their proper application, as

well as the various pruning cuts applied in the practice of pruning. Rather than locating specialized terminology pertinent to proper tree pruning in sometimes less-than-accessible appendices, the authors explain terms like “scaffold branching,” “live branch area,” and “codominant stems” early in this section. Each page follows a similar user-

friendly, linear approach consisting of an “introduction” followed by the “objective” and “application.” The two main types of pruning cuts (i.e. removal cuts and reduction/heading cuts) are discussed in detail along with many scenarios that one encounters while performing “real-world” pruning, including pruning conifer branches vs. deciduous trees, and pruning branches that occur without the presence of a branch bark ridge. This section wraps up by reiterating the importance of using proper cuts, including the application of the standard Three-Step-Cut Method.

Section “C” (Start Pruning – The ABC Method) immediately ties together the amount of pruning (i.e. the pruning “dose”) to the health of the tree, identifying for readers the importance of considering the age and well-being of a tree, relative to its response to being pruned. Specifically, dose is defined as “the percentage of live-crown removed during a pruning event” and that it may be “monitored closely by piling the branches” next to the tree as the pruning takes place for a reference point relative to the amount of plant material being removed. Also mentioned is the caution that over-pruning is a common occurrence.



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Book Review: ABCs Field Guide to Young and Small Tree Pruning

(Continued from page 1)

In keeping with its straightforward theme, this section of the book classifies tree form as being either a tree to be pruned with the idea of maintaining a single upright stem (form “A”) or a tree to be pruned with the idea that the main stem will terminate into laterally growing branches (form “B”). The guide then follows with many excellent photos and discussion advocating and detailing a pruning “plan” in accordance with these two basic tree structures in mind. A-form trees are identified as comprising the majority of trees that are typically being pruned. Specific management of “bad” branches and attachments, codominant stems, competing laterals, and poor branch spacing (including vertical and horizontal spacing) follow. The guide defines “bad” branches to be dead, diseased or structurally defective, including stubs, and “bad” attachments as being those with an acute angled “v” crotch attachment. This section – the largest of the book – closes with the identification and management of crossing branches.

Section “D” (Other Important Pruning Tips) identifies and discusses many important ancillary topics related to pruning including the seasonal timing of the cut, pruning intervals, and a discussion regarding the use of wound dressings. Conversely, this section also captures the “don’ts of tree pruning” with many high-quality photos depicting overpruning, improper pruning cuts, and other pruning faux pas. Of true interest in this portion of the book is the authors’ important emphasis on using timing of pruning as being a key variable that may be employed by the pruner to obtain specific objectives like encouraging flowering, fostering wound closure or enhancing fruit size. Winter, of course, is stressed as being the ideal season in which to prune, as branching structure may be especially apparent during this leaf-off season.

The final section of the book (“E” – Extras) offers many excellent “before and after” pictures that depict what typical pruning scenarios of commonly-planted urban trees will avail, if carried out correctly. Not only of benefit to practitioners, these photos will no doubt help beginners quickly see what a proper pruning job may look like. Discussion is also given to height or clearance to the lowest branch – an important topic in the busy, well-travelled urban environment in which most of the populace lives.

In summary, this guide represents a key step in addressing an important need associated the proper pruning of young and small trees in the urban environment. It is filled with high-quality photos with helpful captions depicting pruning scenarios, pruning challenges, and pruning strategies and tools. Worthy of further note is the fact that in addition to research findings, the authors also identify their personal, experientially-based recommendations in this guide. They also take the opportunity to encourage best management practices, like the use of specific pruning disinfectants, and reiterate the need to prevent over-pruning trees. This book is user-friendly, and successfully takes a topic that can be complex and even intimidating, and makes it straightforward for both homeowner and practitioner alike.

More information is available about this guide at:
www.isa-arbor.com

Rick W. Harper is the Extension Assistant Professor in the Department of Environmental Conservation at UMass-Amherst.

Species Spotlight—Bur oak, *Quercus macrocarpa*

By Mollie Freilicher
MA-DCR
Community Action Forester



Bur oak, also called mossycup oak, is a member of the white oak group and is native to the Great Plains and parts of eastern North America, including parts of New England. In his *Report on the Trees and Shrubs Growing Naturally in the Forests of Massachusetts*, G.B. Emerson discusses known bur oaks in Stockbridge and elsewhere in the southern Berkshires, though the distribution of bur oaks was known to be patchy. It is hardy in zones 3a to 9b, making it suitable for all regions of Massachusetts. Bur oak is a large tree, reaching heights of 70-80 feet, with a comparable spread.

A recent cultivar 'Urban Pinnacle' reaches heights of about 55 feet. In youth, the tree is somewhat pyramidal, and becomes stout and broad with an open crown. In the wild, bur oak is found in dry uplands, ridges, or floodplains.



Leaves of bur oak are alternate, simple, and obovate, and range from four to ten inches long. The lower half of the leaf has two to three deep lobes and the upper portion of the leaf has five to seven shallow, wider lobes. The tip of the leaf is broadly rounded. During the growing season, leaves are a dark green color and shiny above. In the fall, the leaves turn yellow or brown.

Buds of bur oak are imbricate and conical to ovate. The tips of buds can be either sharp or blunt and are often pubescent. Stipules may be present around clustered buds. The stem is stout and yellowish, often with corky ridges when young. The stem can be either smooth or downy.



Bark of bur oak is gray or gray-brown, and rough, with deep ridges that develop as the tree ages.

Flowers are brown catkins and are not important ornamentally. The fruit of bur oak is a large, stalked, solitary acorn, three-fourths to two inches

wide. It is ovoid, downy, and half of the acorn is covered with a cap that is fringed at the edge.

Acorns provide food for wildlife and humans and oaks, generally, support numerous insects that birds and other wildlife rely on for sustenance.



Bur oak is susceptible to similar diseases and insect pests as white oaks, including anthracnose, leaf spots, powdery mildew, armillaria, many galls, and insects, such as pin oak sawfly, saddleback caterpillar, two-lined chestnut borers, and others. Even with these issues, bur oak is a tough tree for urban and suburban conditions.

Bur oak can be difficult to transplant, but it is tolerant of a variety of city conditions. It does best in full sun, in well-drained, alkaline soil. Bur oak requires a large space and may be best suited for parks or other large areas where **it can thrive as a specimen tree. A cultivar 'Urban Pinnacle' has been developed for streetscapes. It grows to 55 feet and has a smaller acorn than the species.** ReGreen Springfield, along with the City of Springfield, planted this cultivar along city streets in April.



G. B. Emerson notes some uses for bur oak common in the 19th century: pins, tree-nails, axles, wagon braces, framing timbers, floors, and other items where white oak would be suitable. Of bur oak, Emerson writes, **"The beauty of this tree, the abundance and luxuriance of its foliage, and the extraordinary size of its acorns, recommend it to the landscape gardener; the value of its wood, to the forester."** In *Trees and Tree-Planting*, the naturalist P.R. Hoy is quoted as saying of the bur oak: **"Nothing can exceed the graceful beauty of these trees when not crowded or cramped in their growth, but left free to follow the laws of their development."** Bur oak can make a great native addition to the urban forest, whether as a large specimen in an open area or as a cultivar in the streetscape.

Photos: Leaf, Twig: Virginia Tech; Form: Univ. of Kentucky Arboretum; Acorn: Paul Wray, Bugwood; Bark, Wikipedia.

Revisiting Pawpaw and Farewell to our Edibility Expert, Russ Cohen

By Mollie Freilicher, MA-DCR Community Action Forester

Russ Cohen, former Rivers Advocate, Division of Ecological Restoration/Riverways Program, Massachusetts Department of Fish and Game gave us some tips on growing and eating pawpaw fruits.

Russ noted that for a tree that grows edible fruit, the shade tolerance of pawpaw is exceptional. As we noted in the species spotlight last month, pawpaw requires hand pollination, but Russ pointed out that if you have more than about 50 plants, hand pollination is not necessary. Carrion flies pollinate pawpaw, and some permaculturalists will plant native flowers also pollinated by carrion flies,

such as Dutchmen's pipe, to attract those pollinators to the area. Russ notes that we are at the northern edge of pawpaw's hardiness and that we should choose sites with warm microclimates for pawpaw.

Russ also advised that fruit be processed quickly once it is brought into the home. Ripe pawpaw can emit a strong odor that may put a would-be eater off from pawpaw. Luckily, if one does not have the time to use the pawpaw right away, the custardy pawpaw flesh can be scooped out easily and frozen for processing later. Be sure to leave the seeds out and avoid consuming the fruit skin or leaves, which contain alkaloids that may irritate skin or cause stomach upset.

For more information on pawpaw, Russ recommends *Farming the Woods: An Integrated Permaculture Approach to Growing Food and Medicinals in Temperate Forests*, by Steve Gabriel (ISBN: 978-1603585071).

Thank you Russ! And thank you for all the wonderful edibility information and fabulous recipes you have passed along over the years. Good luck in your retirement!

(Though we will still reach out to you for your expertise on eating the urban forest. Thanks!)

If you are interested in more edibility information from Russ, check out his book, *Wild Plants I Have Known and Eaten*, available from the [Essex County Greenbelt Association](#).



Pawpaw fruit
(Manual Conde,
Wikipedia)



DCR Deputy Commissioner Matthew Sisk.



Sussanah Lerman, USDA-FS and UMass

Tree City USA Forum and Awards



Paul Sellers, Eversource Energy



Rick Harper, UMass

Growing on Trees

Tree City USA Program Recognizes 83 Communities and One Utility

By Mollie Freilicher, MA-DCR Community Action Forester

On Wednesday, June 3, 2015, tree wardens, tree committee members, mayors, and other political representatives from communities around the state came to the Red Barn at Hampshire College in Amherst for the annual **Tree City USA Forum and Award Ceremony**. **This year's ceremony was made possible with generous support from Eversource,** and with additional support from the U.S. Forest Service, and the Massachusetts Department of Conservation and Recreation.

Julie Coop, DCR Urban and Community Forester, started off the morning with a brief introduction to the DCR Urban and Community Forestry Program and emceed the morning session. Amherst Tree Warden, Alan Snow, and Amherst Tree Committee Chair, Henry Lappen, spoke to the audience about the innovative tree program in Amherst. Ken

Gooch, DCR Director of Forest Health, presented an update on forest health in Massachusetts, including the latest news on winter moth, emerald ash borer, Asian Longhorned beetle, crypt gall wasp, and others. Susannah Lerman, USDA Forest Service and University of Massachusetts, Research Ecologist, gave a presentation on birds and bees in urban areas, sharing some of the diversity that can be found in our towns and cities and how we can improve these patches of greenspace for wildlife. Nicholas Brazee, UMass Extension Plant Pathologist, spoke to the audience about some of the current and past weather conditions and what that means for the upcoming growing season. The speaking program wrapped up with Paul Sellers, Supervisor Vegetation Management, presenting on the vegetation management program of Eversource.



DCR and event sponsor Eversource, from L-R: DCR Urban and Community Forester, Julie Coop, Paul Sellers (Eversource), DCR Deputy Commissioner Matthew Sisk, Calvin Layton (Eversource), and Bob Allen (Eversource)

of Forest Stewardship, Peter Church, emceed the afternoon program and introduced the DCR Deputy Commissioner Matthew Sisk. Deputy Commissioner Sisk addressed the crowd before the presentation of the awards and posed for pictures with community representatives. Awards included special recognition for communities achieving milestone years (5, 10, 15...), and for communities receiving Growth Awards. Growth Awards recognize communities for implementing innovative projects and increasing support for urban forestry. This year, the City of Cambridge reached a significant milestone, becoming a Sterling Tree City USA community, for their achievement of ten Growth Awards.

The day ended outside, with a walk to the Hampshire College Farm Center where Rick Harper, UMass Extension Assistant Professor, planted a tree and discussed site selection and nursery stock considerations with the crowd. Under a blue sky, with temperatures in the 70s, (and with some chickens milling about), attendees had a chance to ask questions and discuss planting and nursery stock and share challenges and successes with Harper and with the group—a great way to end the day.

Congratulations to all and thanks to all who attended!

After luncheon, which attendees enjoyed in the beautiful Red Barn and also outside, on the grounds, the awards program began. DCR Director



Examining root stock (L-R), Alan Snow (Amherst), Chris Ryan (South Hadley), DCR Deputy Commissioner Matthew Sisk, Ben Hillman (Sheffield), and Tom Ingersoll (Sheffield).

Growing on Trees

Tree City USA Communities

- ♦ **Host Community 28 years:** Amherst
- ♦ **Tree Line USA:** National Grid
- ♦ **30 Year Tree City:** Reading
- ♦ **25 Year Tree City:** Lynn, West Springfield
- ♦ **20 Year Tree City:** Needham, Somerville, South Hadley
- ♦ **15 Year Tree City:** Bedford, Grafton, Stoneham, Sutton, Weymouth
- ♦ **10 Year Tree City:** Fall River G, Lanesborough, Pittsfield
- ♦ **5 Year Tree City:** Marlborough, Petersham, Sheffield



DCR Deputy Commissioner Matthew Sisk and Urban and Community Forester Julie Coop with representatives from Amherst.

Acton 22	Easton 23	Lynnfield 9	Springfield 29
Andover 16	Falmouth 18	Marblehead 16	Sturbridge 26
Arlington 13	Framingham 24	Marion 18	Swampscott 24
Belmont 29	Great Barrington 3	Mattapoissett 7	Wakefield 14
Beverly 14	Greenfield 13	Medfield 2	Walpole 7
Boston 19	Groton 19	Medford 17 G	Warren 7
Boxford 9	Hanscom AFB 28	Nantucket 16	Watertown 24
Brockton 17	Haverhill 19	Natick 8	Wellesley 32
Brookline 27	Hingham 27 G	Newburyport 19	West Bridgewater 21
Cambridge 23 G	Holyoke 14	Newton 26	Westborough, 6
Chatham 2	Ipswich 13	Northampton 8	Weston 12
Chelmsford 2	Lawrence 13 G	Orleans 17	Westover ARB 18
Chelsea 11 G	Leominster 17	Peabody 17	Winchester 4
Chicopee 22	Lexington 26	Plymouth 26	Worcester 29 G
Danvers 28	Longmeadow 13	Quincy 17	
Dedham 6	Lowell 17	Salem 13	
Duxbury 24	Ludlow 9	Saugus 16	G Growth Award

We also want to recognize our newest Tree City USA community, Monson, that has achieved Tree City USA status for 2014, becoming our 84th Tree City USA of 2014! Congratulations Monson!

If your community is not a Tree City USA and you would like to pursue Tree City USA recognition for 2015, contact Mollie Freilicher, 413-577-2966, mollie.freilicher@state.ma.us.

Growing on Trees

From the Ecological Landscape Alliance

Save the Dates for ELA's 2016 Conference

ELA's 22nd Annual Conference & Eco-Marketplace will be held at the [UMass Amherst Campus Center](#) on March 9 and 10, 2016.



Out of Control: Chemical-free Strategies for Invasive Plant Control

July 29, 1:00 p.m. - 5:00 p.m. EDT
\$30 ELA Member – \$40 Non-Members
Garden in the Woods, Framingham, MA

Invasive non-native plant species surround us: along roadsides, deep in forests, and in our own backyards. After decades using synthetic herbicides to control invasives, the invasive species remain out of control and growing environmental concerns are driving landscape professionals and the public to consider alternative control methods. This workshop will feature six concise and information-packed presentations plus a powerhouse panel discussion. Recertification CEUs are being sought for this program.

A River Runs Through It: Daylighting of the Neponset River at Gillette Stadium

August 6, 2015, 10:00 a.m. - 1:00 p.m. EDT
Rain or Shine – Bring a bag lunch
Presented by the Ecological Landscape Alliance
Co-hosted by the Southern New England Chapter of the Soil and Water Conservation Society
Presenters: Tom Benjamin and Dan Krantz
\$22 ELA Members – \$32 Non-Members

More than a decade ago, the New England Patriots constructed the new Gillette Stadium. A significant side project was the restoration of a long stretch of the Neponset River adjacent to the new stadium parking lot. In the 1940s, race-track construction on the site had originally forced the river underground. Gillette Stadium needed parking and the silt-clogged system needed daylighting and restoration. Hired by the New England Patriots/Kraft Group, Tom Benjamin was engaged to enhance daylighting and re-create the riparian habitat for a one mile section of Neponset River including all aspects of the landscape design from the master plan through to construction documents.

Learn more and register [here](#).

We do our best to ensure that listings are accurate, but please check with program organizers for the most up-to-date information.

Growing on Trees

Baker-Polito Administration Expands Greening the Gateway Cities Program to Include Revere and Chicopee

REVERE – June 12, 2015 – Today, at a tree planting ceremony at Fredericks Park in Revere, Energy and Environmental Affairs (EEA) Secretary Matthew A. Beaton announced an initiative to expand the Greening the Gateway Cities Program (GGCP) to include the cities of Revere and Chicopee. The program, which targets the Commonwealth's 26 Gateway Cities, is designed to utilize tree plantings as a way to reduce energy use in urban neighborhoods and lower heating and cooling costs for residents and businesses.

“By extending the Greening the Gateway Cities Program to include the communities of Revere and Chicopee, our Administration continues its commitment to work closely with cities and towns across the Commonwealth to provide resources that benefit municipalities and improve the state’s environment,” said Lieutenant Governor Karyn Polito.

“Increased tree canopy will provide our communities with the first, and best, line of defense from excessive urban summer heat, and the biting winds of winter,” said Secretary Beaton. **“In addition to benefiting the Commonwealth in terms of energy efficiency, the Greening the Gateway Cities Program will provide the residents of Revere and Chicopee with cleaner air and water, reduced noise pollution, and the beatification of homes and neighborhoods within their community.”**

With a defined goal of a 10 percent increase in urban tree canopy in selected neighborhoods within Gateway Cities, the increase in tree cover is expected to reduce heating and cooling costs in the selected areas by approximately 10 percent, with an average homeowner saving approximately \$230 a year, once the trees reach maturity. Over their lifespan, the trees are expected to lead to \$400 million in energy savings for residents and businesses.

Aimed at improving the often low tree canopy found in the Commonwealth's Gateway Cities due to their urban character and history of manufacturing, the programs benefits are not isolated to energy efficiency. By planting trees, communities will see a reduction in storm water runoff, higher air quality, an increase in property values and tax receipts, and a safer, healthier environment for residents.

Under the program, the Department of Conservation and Recreation (DCR) is spearheading tree planting efforts and

is in the process of planting up to a combined 15,000 trees in Chelsea, Holyoke, and Fall River. Agency staff, working in partnership with local municipalities and grassroots organizations, have developed a successful approach to planting the number of trees required to have an energy impact, focusing on high-density urban neighborhoods, where planting on average 10 trees per acre will provide benefits to 15 to 25 households. Planting this number of trees will increase canopy by an estimated 1 percent in eight years, and 10 percent in 30 years.

“The Greening the Gateway Cities Program (GGCP) is not only an important tool in our overall urban forestry plan, but will be an engine for job creation and energy sustainability in these communities,” said DCR Commissioner Carol Sanchez. **“DCR is proud to continue the long standing partnership between the Bureau of Forestry and the cities of Chicopee, Revere, Chelsea, Holyoke, and Fall River. With the help of local community and grassroots organizations, GGCP will pay dividends in these high density urban communities where green space is needed most.”**

“We are pleased to support tree planting in Gateway Cities, as trees are long term contributors to our efforts to meet Massachusetts’ energy and climate goals,” said Department of Energy Resources Commissioner Judith Judson.

To implement the expansion of the Greening the Gateway Cities Program, the DCR will partner with the city governments of Revere and Chicopee and community groups to plant approximately 100 trees this June, and thousands more to come. The program will also benefit the local economies of Revere and Chicopee by creating jobs for local residents. DCR will hire local workers for tree planting teams in each city, and every tree being planted will be purchased from Massachusetts nurseries.

“We are grateful to Secretary Beaton and the Executive Office of Energy and Environmental Affairs, along with the Baker Administration, for providing the city of Revere with the resources needed to increase our inventory of trees,” said Revere Mayor Dan Rizzo. **“Increasing tree canopy and green space is vital to continue to make Revere a great place to live, work and raise a family. This has been and will continue to be a crucial priority for my Administration.”**

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Greening the Gateway Cities

(Continued from page 8)

“Greening the Gateway Cities program is an innovative program that addresses a multitude of critical issues facing Massachusetts while making our cities better places to live and raise a family,” said House Speaker Robert A. DeLeo (D-Revere). **“I’m proud of how Revere has flourished as a Gateway City and I thank the Baker Administration, our partners in the federal government and the local groups that are so committed to our community’s environment.”**

“I want to thank Governor Baker, Lieutenant Governor Polito and their administration for providing the City of Revere with a ‘Greening the Gateway Cities’ grant,” said State Representative RoseLee Vincent (D-Revere). **“It is important that as an urban community, we make investments in our green spaces so that that families and children have a place to retreat from the bustle of the city. Through the Baker-Polito Administration’s generosity, Revere will be able to use this funding to continue to green our urban area.”**

Tree Care Industry Association Workshop on Plant Health Care

Dr. Mike Raupp and Tchukki Andersen, CTSP, BCMA

This full-day workshop with demonstrations combines Plant Health Care (PHC) concepts for technicians and managers, as well as live demonstrations of PHC techniques. PHC services are based on combining the principles of integrated pest management (IPM) with proactive tree care management.

Novices will learn about PHC concepts and methods, while managers can compare and evaluate their company’s PHC program against the latest industry recommendations.

Arborjet will demonstrate their tree injection equipment as part of the workshop. Dr. Raupp will be conducting a mock diagnostic walk (site assessment) on the grounds.

Learn more, review complete agenda, and register at www.tcia.org or 800-733-2622.

What: Plant Health Care Workshop

When: Thursday, July 16, 2015 | 8:30 - 4:30 p.m.

“I’m very pleased to see the efforts of the Greening the Gateway Cities initiative come to fruition right here in Revere,” said Senator Anthony Petrucci (D-East Boston). **“The program is an effective way to best ensure environmental and energy efficiency with our constituents seeing benefits both esthetically and fiscally.”**

“The City of Chicopee greatly appreciates the Commonwealth’s commitment through our City and its neighborhoods by providing us with a number of replacement trees,” said Chicopee Mayor Richard J. Kos. **“As a Gateway City, positive impact on neighborhoods and our community as a whole will be measured.”**

“Greening the Gateway Cities is a great fit for Chicopee, and I am pleased that its residents will benefit not only from the energy-saving and environmental aspects of the program, but also from the beautification of their neighborhoods as the tree-planting progresses,” said State Senator James Welch (D-West Springfield).

(Check-In Begins At 8:00 a.m.)

Where: Massachusetts Horticultural Society (Hunnewell Carriage House, 900 Washington Street, Wellesley, MA 02482)

TCIA Member Price: \$110; Non-Member Price: \$150

Price includes lunch, plant health care technician manual and managing insects and mites on woody plants (together a \$194 retail value).

Earn 7.5 ISA CEUS and 1 CTSP CEU for attending.

This workshop is made possible by Arborjet.

Down to Earth:

MNLA Annual Conference

July 23, 2015

Topsfield Fairgrounds, Topsfield, MA

Professionals in the green industry will not want to miss this great summer opportunity for education, recertification, and networking! Down to Earth attracts more than 600 industry professionals—it’s the place to connect with colleagues and friends!

To register and find out more, go to: www.mnla.com.

Growing on Trees

From the Northeast Climate Science Center

NIACS Launches Online Adaptation Workbook for Forest Management and Conservation

The Northern Institute of Applied Climate Science is pleased to announce the release of www.AdaptationWorkbook.org, a new web-based tool for natural resource professionals. The new website is an online edition of the Adaptation Workbook, previously published in Forest Adaptation Resources: Climate Change Tools and Approaches for Land Managers. This step-by-step process was designed to help people consider climate change at the scale of their own management decisions and design their own customized adaptation actions. The new online environment allows users to seamlessly explore content from regional climate change vulnerability assessments and adaptation strategies and approaches, all while working at their own pace. [Read more >>](#)

New Release: Adaptation for Cities Project

The Great Lakes Adaptation Assessment for Cities pilot project worked closely with six mid-sized cities in the Great Lakes region to better understand what climate information and adaptation resources are needed to enhance resiliency across the region. [Read more >>](#)

EPA Local Government Climate Adaptation Training Module Available Online

The Environmental Protection Agency (EPA) has released an online training module to help local government officials take actions to increase their communities' resiliency to a changing climate. The virtual training, which lasts about 30 minutes, was developed with EPA's Local Government Advisory Committee. It illustrates how a changing climate may affect a variety of environmental and public health services, describes how different communities are already adapting to climate-related challenges, and links to a number of federal and state resources that can help communities assess their unique climate-related risks and opportunities to become more resilient to climate change.

Click [here to access the online training](#).

From the Massachusetts Department of Agricultural Resources Ash Tree Tag Kit

<http://massnrc.org/pests/blog/2015/06/ash-tree-tagging-kits.html>

If you have ash trees in your town and want to raise awareness about the impact of Emerald Ash Borer, the Mass. Dept. of Agricultural Resources is now offering free Tree Tagging Kits to interested groups. The kits come with tags printed on high-visibility green paper, flagging tape to tie them onto trees, and a tip sheet to get the most out of your tagging efforts. This type of outreach has been used in several other states with great success. To submit a request for a free kit, use [this form](#).



Ash tag at UMass Amherst. (Photo: MDAR)

Grants

DCR Urban and Community Forestry Challenge Grants

Next deadline: October 1 (Intent to Apply) November 1 (Full Application)

Challenge grants are 50-50 matching grants (75-25 for environmental justice projects) to municipalities and nonprofit groups in Massachusetts communities of all sizes for the purpose of building local capacity for excellent urban and community forestry at the local and regional level.

The USDA Forest Service provides funding for the grant program, and DCR administers the grants with guidance from **the Massachusetts Tree Wardens' and Foresters' Association. The DCR Urban and Community Forestry Program** assists communities and nonprofit groups in their efforts to protect and manage community trees and forest ecosystems, **with the ultimate aim of improving the environment and enhancing the livability of all of Massachusetts's communities.**

For more information on the Challenge Grants, including our Eversource Go Green grants and National Grid Partnership Grants, contact Julie Coop at 617-626-1468 or julie.coop@state.ma.us or Mollie Freilicher at 413-577-2966 or mollie.freilicher@state.ma.us.

Changes to the DCR Urban and Community Forestry Challenge Grant

In 2016, our Urban and Community Forestry Challenge Grant will move to one grant round per year. The annual deadline will be November 1. This move will enable the program to better review and compare grant proposals. Look for some additional changes to the 2016 program in upcoming issues.

Global Green Releases RFP to Cities for Sustainable Neighborhood Planning

Does your community want greener, more equitable, and more vibrant neighborhoods? Is your community interested in increasing resilience in the face of extreme weather events? Are there significant projects on the horizon that your community wants to make sustainable?

Global Green is now accepting applications for no-cost technical assistance that can help communities achieve these **goals. The assistance uses Global Green's sustainable neighborhood assessment tool, which is based on the LEED for Neighborhood Development standard**, a nationally recognized method for creating neighborhoods that are walkable, bikeable, resource-efficient, and equitable. This free assistance is being provided under a grant to Global Green from **EPA's Office of Sustainable Communities' Building Blocks for Sustainable Communities Program.**

Eligible applicants are local and tribal governments. The deadline for applications is July 17, 2015, at midnight PST.

For more information and the application form, visit <http://www.globalgreen.org/press/gxocudahx8g29noqxp3knsalyr3hlc>.

Learn more about smart growth at www.epa.gov/smartgrowth.

Captain Planet Foundation

Deadline September 30

Grants are made for activities that conform to the mission of the Captain Planet Foundation and that are project-based, performed by youth, and have real environmental outcomes. Grants from the Captain Planet Foundation are intended to provide hands-on environmental stewardship opportunities for youth, serve as a catalyst to getting environment-based education in schools, and inspire youth and communities to participate in community service through environmental stewardship activities. Grant requests range from \$500 - \$2,500. Preference is given to projects with at least 50% matching or in-kind funding. For more information, go to: <http://captainplanetfoundation.org/apply-for-grants/>.

Grants

Google Ad Grant

Google Ad Grants is the nonprofit edition of AdWords, Google's online advertising tool. Google Ad Grants empowers nonprofit organizations, through \$10,000 per month in in-kind AdWords™ advertising, to promote their missions and initiatives on Google search result pages. Learn more at:

<http://www.google.com/grants/>.

Webcasts

Urban Forestry Today Summer Noonhour Webcast Series

People and Urban Trees: Perceptions and Stewardship Behavior

July 24, 2015, 12:00 – 1:00 p.m EDT

Emerging research points to a deep and growing interest in urban trees and greenery from citizens who live in these communities. Join Dr. Shorna Allred, Associate Professor and Associate Director, Human Dimensions Research Unit at Cornell University, to learn about the trends, patterns, and effects that living "among the trees" has on people.

To attend, visit www.joinwebinar.com and enter the ID code 155-981-147.

This broadcast is free and will offer the opportunity for arborists to earn 1.0 ISA CEU and 0.5 MCA credit.

For more information, contact:
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The Urban Forestry Today 2015 Webcast Series is sponsored by the University of Massachusetts Department of Environmental Conservation, in cooperation with the USDA Forest Service, Massachusetts Department of Conservation and Recreation, University of Massachusetts Extension, and Massachusetts Tree Wardens' & Foresters' Association.

EPA 2015 Green Infrastructure Webcast Series

This series is generally geared towards public officials and practitioners just beginning to implement green infrastructure, as well as those looking to enhance established programs. Leading academics and professionals from around the country will cover a range of emerging topics and applications, from implementing green infrastructure in arid climates to winter operations and maintenance.

Urban Forest Connections

Second Wednesdays | 1:00 – 2:00 pm ET

The Forest Service's Urban Forest Connections webinar series brings experts together to discuss the latest science, practice, and policy on urban forestry and the environment. These webinars are open to all. Past webinar presentations and recordings are available online: <http://www.fs.fed.us/research/urban-webinars/>.

Next session:

September 9, 2015 | 1:00-2:15 pm ET

Urban FIA: Bringing the nation's forest census to urban areas

Mark Majewsky, USDA Forest Service

Dick Rideout / Andrew Stoltman, Wisconsin Department of Natural Resources

Chris Edgar, Texas A&M Forest Service

Learn more and watch archived webinars at:

http://water.epa.gov/infrastructure/greeninfrastructure/gi_training.cfm.

Paying for Stormwater - The Benefits of a Utility July 7, 2015

Robert D. Chandler, Ph.D., P.E., Assistant Public Works Director City of Salem, OR; Shelia Dormody, Dir. of Policy, City of Providence, RI; and Andrew Reese, PE LEED, Vice President, AMEC Foster Wheeler

Winter Weather O&M for Green Infrastructure October 6, 2015

Tom Ballestero, Associate Professor, Director of UNH Stormwater Center; and Brooke Asleson, Watershed Project Manager, Metro, Minnesota Pollution Control Agency

Ahead of the Curve – Implementing Green Infrastructure in Rural and Growing Communities December 8, 2015

Jeremy Pirkle, Water/Wastewater Director City of Clarkesville, GA; Daniel Canton, City Administrator, Monona, IA; and Jon Biederman, Project Engineer and Branch Manager, Fehr Graham

Gleanings

Witness Tree



A few months back, we [highlighted](#) a forthcoming book, *Witness Tree*, written by Lynda Mapes. Mapes is a *Seattle Post-Intelligencer* reporter who has spent the last year as a Bullard Fellow at Harvard Forest. Prior to her Bullard Fellowship, Lynda was a Knight Science Journalism Fellow at MIT. **MIT has recently produced a video about Mapes's upcoming book. Check out this [10-minute video](#) and learn more about the book and forest re-search taking place at Harvard Forest.**

Low Impact Development Atlas

<http://lidmap.uconn.edu/>

The Low Impact Development (LID) Atlas was created for the National Nonpoint Education for Municipal Officials (NEMO) Network by the Connecticut NEMO Program and the California Center for Water and Land Use to highlight innovative LID practices around the country. Its goal is to encourage and educate local officials and others about low impact development practices by providing specific, local examples of their use.



The 31-member programs of the National NEMO Network have compiled the projects highlighted on this site and will continue to add new projects as they become available. Each project balloon contains project specifics, a summary of the project, photos (when available) and links to more information. Kathryn Woodruff of CT NEMO, Mark Hensel, and John Ray built the site.

For more information on the National NEMO Network, please visit nemonet.uconn.edu.

Plant This Book to Grow a Tree

By Margaret Badore

May 26, 2015—A small book publisher in Argentina is offering a book that can grow back into a tree after you're done reading it. The publishing house, **Pequeño Editor**, says this is “a book that returns to nature what it took from it” and that it is the “first book that can be planted after it is read.” The project, called **Tree Book Tree**, uses acid-free paper impregnated with Jacaranda seeds, a species of flowering tree native to Central and South America. The book is then printed with biodegradable ink. To promote the concept, the publisher has created terrariums that demonstrate the sprouting books. Read the full story at treehugger.com.



Can Electric Equipment Revolutionize Landscape Maintenance?



by Jamie Banks

Quiet Communities, a nonprofit organization based in Lincoln, MA provides education about the deleterious effects of gas-powered landscape maintenance on our health and environment. Director Jamie Banks is a vocal advocate for transitioning the landscape maintenance industry to the range of commercial electric equipment now on the market. [Read the article](#) at ecolandscaping.org.

Gleanings

Beth Moon Photographs the World's Oldest Trees by Starlight

Ancient trees affected by cosmic rays are the subject of The “Diamond Nights” project by San Francisco-based photographer Beth Moon. Moon has spent the last [14 years photographing](#) the world's oldest trees in daylight, but this series captures them at night. Her photos feature primarily baobab and quiver trees in South Africa, Botswana, and Namibia.

“Our relationship to the wild has always played an important role in my work. This series was inspired by two fascinating, scientific studies that connect tree growth with celestial movement and astral cycles,” explains Moon on her website. The first study concluded that cosmic radiation impacts tree growth even more than annual temperature or rainfall; the second found that tree buds change size and shape directly correlating to the moon and planets.



A guide led Moon to each location during the day. She returned to the marked spot at night, and took photos with 30 second exposure times to avoid capturing star movement. Each photo is named after the constellations in the background. Read the full story and see more photos at: <http://www.boredpanda.com/ancient-trees-photos-diamond-nights-photography-beth-moon/>



The Man Who Grows Trees into Chairs

June 19, 2015—A designer in Derbyshire says he has come up with a new and dramatically more efficient way of making furniture. Gavin Munro grows young trees directly into the shape of chairs, lamps, and mirror frames. Mr. Munro's project has been going for the past nine years and this year the first lot of trees will be harvested to be sold as the finished products. Watch a video at bbc.com.

News

How Europe's Climate Policies Led to More U.S. Trees Being Cut Down

By Joby Warrick

June 2, 2015—Oak City, N.C. — For the sake of a greener Europe, thousands of American trees are falling each month in the forests outside this cotton-country town.

Every morning, logging crews go to work in densely wooded bottomlands along the Roanoke River, clearing out every tree and shrub down to the bare dirt. Each day, dozens of trucks haul freshly cut oaks and poplars to a nearby factory where the wood is converted into small pellets, to be used as fuel in European power plants.

Soaring demand for this woody fuel has led to the construction of more than two dozen pellet factories in the Southeast in the past decade, along with special port facilities in Virginia and Georgia where mountains of pellets are loaded onto Europe-bound freighters. European officials promote the trade as part of the fight against climate change. Burning “biomass” from trees instead of

coal, they say, means fewer greenhouse gases in the atmosphere.

But that claim is increasingly coming under challenge. A number of independent experts and scientific studies — including a [new analysis released Tuesday](#) — are casting doubt on a key argument used to justify the cutting of Southern forests to make fuel. In reality, these scientists say, Europe's appetite for wood pellets could lead to more carbon pollution for decades to come, while also putting some of the East Coast's most productive wildlife habitats at risk. Read the full story at [The Washington Post](#).

Pitting Wasps against Beetles, Foresters Play the Long Game Against an Invasive Pest

Last week, a UPS truck rolled up to an office of the Division of Forests and Lands. Its cargo? A cooler full of Asian wasps from a lab in Michigan. Molly Heuss, who works on the state's emerald ash borer program, cuts off the packing tape that holds the cooler shut to check out its contents. “It says we've got 6,850 female *Tetrastichus planipennisi*,” she says. Read the full story at NHPR.org.

News

EPA Plans Temporary Pesticide Restrictions While Bees Feed

By Seth Borenstein

May 28, 2015—If honeybees are busy pollinating large, blooming croplands, farmers wanting to spray toxic pesticides will soon have to buzz off, the Environmental Protection Agency is proposing. A federal rule to be proposed Thursday would create temporary pesticide-free zones when certain plants are in bloom around [bees](#) that are trucked from farm to farm by professional beekeepers, which are the majority of honeybees in the U.S. The pesticide halt would only happen during the time the flower is in bloom and the bees are there, and only on the property where the bees are working, not neighboring land. The rule applies to virtually all insecticides, more than 1,000 products involving 76 different chemical compounds, said Jim Jones, EPA's assistant administrator for chemical safety and pollution prevention. It involves nearly all pesticides, including the much-debated class of pesticides called neonicotinoids, he said. The idea is "to create greater space between chemicals that are toxic to bees and the bees," Jones told The Associated Press. This is part of a new multi-part push by the Obama administration to try to reverse dramatic declines in bee populations. A new federal survey found beekeepers lost more than 40 percent of their colonies last year, although they later recovered by dividing surviving hives. Read more at [phys.org](#).

Read the EPA proposal and submit public comments by July 29, 2015 at [epa.gov](#).

Valuable Massachusetts Ecosystems Shrinking, Doing More with Less, Study Shows

May 14, 2015—Ecologists and conservation groups single out the hardest-working ecosystems -called "hotspots" - for their exceptional conservation value. The number of ecosystem hotspots has increased in Massachusetts over the past decade, with more and more hotspots popping up in metro Boston, a study has found. Full story is at [sciencedaily.com](#).

Local High Schoolers to Spend Summer Greening Neighborhood

by Tanay Warerkar

June 17, 2015—A group of local high school students is going to work to make Greenpoint greener this summer as part of an internship program run by the environmental non-profit organization Trees New York. The Young Forester Internship Program seeks high school junior and seniors, who either attend school in Greenpoint or live in the neighborhood. This marks the first time the internship, which has operated in other parts of the City, is offered in Greenpoint and is focused exclusively on one neighborhood. This was made possible by funding through the City Parks Foundation and Greenpoint Community Environmental Fund (GCEF) program. Read the full story at the [Greenpoint Gazette](#).

Ash Borer Efforts Slowing Other Work in Champaign, IL

5/14/15, Champaign — The city is falling behind on its pruning and removal services because of the continued problem with emerald ash borer, its acting forestry supervisor says. An outbreak of the destructive insects has led Andrew Lamoreux to revise the city's response plan, which now calls for devoting fewer resources to trying to save ash trees, and more to the removal of all 1,786 ash trees in the next six years. Overall, 8.3 percent of Champaign's trees are ash. Read the full story at [The News Gazette](#).

Tiny, Silver Flies Deployed to Save East Coast Hemlock Trees

By Robert Gebelhoff

June 19, 2015 For decades, the East Coast hemlock forests stretching from Georgia to southern Canada have been ravaged by a tiny invasive insect called the [hemlock woolly adelgid](#). The bugs nest on the branches of the hemlocks, and have turned acres of once deep-green forests into plots of dead, gray trunks. But now, a team of scientists, funded by the U.S. Forest Service, is recruiting new forces to fight the invader: tiny, silver flies native to Washington State, which feed on the pest. Read the full story at [The Washington Post](#).

Tree That Fell in Front of a Stoughton Dental Office Being Turned into a Giant Tooth

By Elise Harmon

May 29, 2015—A 300-year-old tree that toppled in front of a dentist's office in Stoughton during Hurricane Irene will gain new life in the shape of a — you guessed it — tooth. The beech tree that grew in front of Kid Care Dental until a large part of it crashed onto dentist Martin Kaplan's car in 2011 had historical significance. "It was planted when the town of Stoughton was founded," said Lorraine Aubuchon, administrator of the dental practice, adding it was one of several young trees put in the ground on the day the town was incorporated in 1726. Read the full story at [The Boston Globe](#).

On the Horizon

July 7	EPA Green Infrastructure Webcast, www.epa.gov	Sept 27	UMass Student Tree Climbing Competition, UMass-Amherst
July 8	Learn to Observe: Tree Spotters Citizen Science Launch, Arnold Arboretum	Sept 28-30	TRAQ Training, South Portland, ME, www.newenglandisa.org
July 23	Down to Earth: MNLA Annual Summer Conference, Topsfield, MA www.mnla.com	Oct 2	MCA Exam, Elm Bank, Wellesley, www.massarbor.org
July 24	Urban Forestry Today webcast, People and Urban Trees: Perceptions and Stewardship Behavior www.joinwebinar.com (155-981-147)	Oct 2-3	2015 DCR Tree Steward Training, Harvard Forest, Petersham
Aug 5	Mass. Certified Horticulturalist (MCH) Exam, Westborough, MA, www.mnla.com	Oct 6	EPA Green Infrastructure Webcast, www.epa.gov
Sept 9	Urban Forest Connections webinar, http://www.fs.fed.us/research/urban-webinars	Oct 9-11	Women's Tree Climbing Workshop, Petersham, MA, www.newenglandisa.org
Sept 16	Establishing Trees in Urban Environments, Professional Development Series, Newburyport, MA, www.masstreewardens.org	Oct 20	MAA Safety Saves, Elm Bank, Wellesley, www.massarbor.org
Sept 19	UMass – Stockbridge Tree Climbing Competition, UMass-Amherst	Oct 20	MAA Dinner Meeting, Framingham, www.massarbor.org
Sept 21-23	TRAQ Training, Montpelier, VT, www.newenglandisa.org	Oct 25-27	New England ISA Annual Conference, North Conway, NH, www.newenglandisa.org
Sept 22	MAA Dinner Meeting, Framingham, www.massarbor.org	Nov 12-14	TCI Expo, Pittsburgh, PA, www.tcia.org
Sept 23	Saluting Branches, Arborist Day of Service, www.salutingbranches.org	Nov 17	Society of Municipal Arborists Annual Conference, Denver, CO, www.urban-forestry.com
Sept 24-26	TRAQ Training, Portsmouth, NH, www.newenglandisa.org	Nov 18-19	Partners in Community Forestry Conference, Denver, CO, www.arborday.org
Sept 27	Mass. Town Forests Celebration, Wilbraham, MA	Dec 2-4	New England Grows, Boston, MA, www.newenglandgrows.org
		Dec 2-5	American Society of Consulting Arborists Annual Conference, Tuscon, AZ, https://www.asca-consultants.org/

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If you have a topic you'd like to see covered or want to submit an item to *The Citizen Forester* (article, photo, event listing, etc.), please contact Mollie Freilicher or click [here](#).

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